

REMARKS

Reconsideration of the various rejections set forth in the Office Action dated 05/06/2004 is respectfully requested in view of the following remarks.

No claims have been amended. Upon entry of the following remarks, claims 6, 7, 8, 11, 23-33, 45-67, 94-97, 100, 106-110, 113, and 119 will be in the present application.

Rejections Under 35 U.S.C. §102

Claim 8 has been rejected as being anticipated by the Rodenhouse Grip-Lok® screw. The Rodenhouse Grip-Lok® screw as "according to the Figure" does not have a symmetrical thread pattern, but instead has a thread pattern with differing flank angles. As such, a proper rejection of claim 8 cannot be made.

De Caro, United States Patent No. 4,959,938, is Nonanalogous Art

Rejection of claims 31, 50, 57, 66, 94-97, 100, 106-110, 113, and 119 is improper for at least the reason that the Rodenhouse Grip-Lok® screw is directed toward a different field of endeavor than the Applicant's claimed invention and is not pertinent to the particular problem with which the Applicant is concerned. Simply stated, a person of ordinary skill in the art would not reasonably have expected to solve, at least, the problem of "volcanoing" or "mushrooming" in dimensional building materials with a reference dealing with a fastener/washer assembly" as found in the Rodenhouse Grip-Lok® screw disclosure. The Rodenhouse Grip-Lok® screw disclosure explicitly teaches a plate and washer system with the fastener having threads to hold down the washer. The washer is in turn used to hold down "foam". See Walls & Ceilings, page 82, June 1999. The Rodenhouse Grip-Lok® screw is designed to specifically disengage the drive-bit from the recess head "automatically because the washer throat will "swallow" the headless screw from the drive bit without any planning or effort on your part". For at least these reasons the Rodenhouse Grip-Lok® screw is nonanalogous art, and as such cannot be relied on as a reference by the Examiner in this case.

Rejections Under 35 U.S.C. §103

Claims 6, 7, 11, 45, 47, 48, 51, 52, 54, 55, 58-61, 63, 64, and 67 have been rejected under 35 U.S.C. §103 as unpatentable over the Rodenhouse Grip-Lok® screw in view of Takasaki (US 6,000,892).

To establish a prima facie case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143.

As thoroughly discussed in a recent court holding, ...the essential factual evidence on the issue of obviousness is set forth in Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966) and extensive ensuing precedent. The patent examination process centers on prior art and the analysis thereof. When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the Graham factors). In re Lee, 61 USPQ2d, 1430 (Fed. Cir. 2002).

A showing of a suggestion, teaching or motivation to combine the prior art reference is an "essential component of an obvious holding" C.R. Bard, Inc. v. M3 Systems, Inc., 48 USPQ2d 1225, 1232 (Fed. Cir. 1998).

The expectation of success is not whether it would have been obvious to try a modification or combination. Gillette Co. v. S.C. Johnson & Son, Inc., 919 F.2d 720, 725 (Fed. Cir. 1990).

A prior art reference or combined references must teach or suggest all of the limitations of a claim to be prior art under §103. In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

The Proposed Modification or Combination Would Change the Principle of Operation of The Rodenhouse Grip-Lok® Screw

The MPEP states that "[I]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)" MPEP 2143.01.

The Rodenhouse Grip-Lok® screw is clearly described in the Walls & Ceilings publication as having a principle of operation wherein:

[t]he smaller bottom thread quickly penetrates the substrate as the larger top thread engages into the washer hub. After six revolutions of the screw, the top thread sets deep into the center hub of the washer throat. This preloads the insulation to the correct depth and rasping height (slightly sub-surface). The washer compresses into the foam, at the exact time that the drive-bit disengages from the recess head. Release occurs automatically because the washer throat will "swallow" the headless screw from the drive bit without any planning or effort on your part."

The principle of operation for suppressing the bulging by the Takasaki '892 reference is stated as confining material "that remains on the surface of the plate member A1, thus preventing the bulge from protruding from the head". Takasaki '892, Column 3, lines 16-18.

The Examiner's proposed modification or combination of the Rodenhouse Grip-Lok® screw with the teachings of Takasaki '892 to include the Rodenhouse Grip-Lok® screw with the "undercut features of the head on the Grip-Lok screw as disclosed in Takasaki" would change the principle of operation of, at least, disengaging the drive-bit from the recess head "automatically because the washer throat will "swallow" the headless screw from the drive bit without any planning or effort on your part". The proposed change or modification to the teachings of the Rodenhouse Grip-Lok® screw would clearly prevent the drive-bit from disengaging from the recess head

"automatically" since the washer throat will not "swallow" the screw head as modified by the teaching of Takasaki. The proposed modification or combination of the teachings of the Rodenhouse Grip-Lok® screw would instead and by necessity cause the drive-bit to remain engaged with the recess head since the head of the screw would remain above the washer.

In addition, the modification or combination of the teachings of the Rodenhouse Grip-Lok® screw to include the "undercut features of the head on the Grip-Lok screw as disclosed in Takasaki" would require a substantial reconstruction and redesign of the elements shown in the Rodenhouse Grip-Lok® screw, since it would require, at least, a substantially headless portion to reconstructed and redesigned into a portion having a head with "undercut features". Because of, at least, these reasons the rejection of the claims is improper.

No Motivation or Suggestion To Make The Proposed Combination or Modification

The cited prior art and the knowledge of one of ordinary skill in the art at the time the invention was made does not teach or suggest a fastener having a substantially cylindrical threaded lower region wherein a cross sectional area along the cylindrical upper region greater than the cross sectional area of the shaft along the cylindrical lower region in combination with, for example:

the head is provided with a top surface having an opening to receive a tool and a bottom surface having a v-shaped undercut having a conical surface in the undercut that connects the lip with a conical underside of the head; or

a crown that extends around the perimeter of the head and extends beyond the lower surface of the head thereby defining an open volume between the lower edge of the crown and the shaft of the screw; or

a crown that extends around the perimeter of the head, wherein the crown extends beyond the lower surface of the head, forming a recessed region between the lower edge of the crown and the shaft of the screw; or

a bottom surface having a v-shaped undercut.

This is evidenced at least by the disclosure of the Rodenhouse Grip-Lok® screw which clearly and in no uncertain terms teaches disengagement of the drive-bit from the recess head "automatically because the washer throat will "swallow" the headless screw from the drive bit without any planning or effort on your part". The teaching and suggestion of the Rodenhouse Grip-Lok® screw disclosure clearly requires that the fastener be substantially "headless" and that it not be configured as in the claimed invention.

The Examiner's asserted rejection under 35 U.S.C §103 of the claims 6, 7, 11, 45, 47, 48, 51, 52, 54, 55, 58-61, 63, 64, and 67 simply does not apply since the required motivation or suggestion is not present to arrive at a fastener having, at least, the above claimed features.

Cited Prior Art Teach Away

It is a well-established "general rule" that references which teach away cannot serve to create a prima facie case of obviousness. In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1131, 1132 (Fed. Cir. 1994). A "reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the Applicant." Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340 (Fed. Cir. 2000) citing Gurley at 553; Monarch Knitting Machinery v. Sulzer Morat GmbH, 139 F.3d 877, 882 (Fed. Cir. 1998).

The Rodenhouse Grip-Lok® screw disclosure expressly teaches and suggests a line of development flowing toward fastener/washer assemblies designed to operate in a very specific manner. The assembly has a fastener and washer used together to accomplish the objects set forth in the Rodenhouse Grip-Lok® screw disclosure as, at least, discussed above. This clearly is a line of development unlikely to be productive in achieving the result of among other things eliminating substrate displacement as sought by the Applicants. As such, the Rodenhouse Grip-Lok® screw disclosure reference clearly teaches away from the claimed invention. Therefore, the rejection under 35 U.S.C. §103 is improper for at least this additional reason.

Rejection of Claims 23, 29, and 30 Improper

Claims 23, 29, and 30 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Hsing '312 reference (U.S. 6,045,312).

The courts have held that the prior art reference must be considered in its entirety, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984); see also M.P.E.P. §2141.02. The burden is on the Examiner to demonstrate that the prior art evidences sufficient suggestion of the desirability of doing what the inventor has done. See M.P.E.P. §2142. At an irreducible minimum, this burden requires this Examiner to apply the facts of the case to "present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Clearly, the Examiner cannot discharge himself from this burden by simply declaring all of the elements of an invention, along with the manner of combining these elements, to be well known in the art. Ex parte Stern, 13 USPQ2d 1379, 1381 (Bd. Pat. App. & Inter. 1989).

The Examiner has not pointed to any disclosure in the Hsing '312 reference showing, at least, the element of at least twice as many threads per unit length in the upper region. Applicant requests that the Examiner clarify this assertion by pointing to a specific disclosure in the Hsing '312 reference. However, if the Hsing '312 reference is again asserted by the Examiner to disclose this element, the rejection would clearly fail since the Examiner would be merely taking the Hsing '312 reference's thread configuration and declaring all of the elements of an invention, along with the manner of combining these elements, to be well known in the art. Clearly, the Hsing '312 reference has not been considered in its entirety since the Hsing '312 reference is directed toward device for fastening sheet metal and contains no motivation or suggestion to combine its teachings with the Rodenhouse Grip-Lock® screw to arrive at the Applicants' claimed invention. As such, the rejection of claims 23, 29, and 30 under 35 U.S.C. §103 cannot properly be made.

Rejection of Claims 46, 53, and 62 Improper

Claims 46, 53, and 62 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Takasaki '892 reference, and in further view of the Hsing '312 reference.

The rejection of claims 46, 53, and 62 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

Rejection of Claims 24-28 and 32 Improper

Claims 24-28 and 32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Hsing '312 reference, and in further view of the Takasaki '892 reference.

The rejection of claims 24-28 and 32 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

Rejection of Claims 50, 57, and 66 Improper

Claims 50, 57, and 66 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Takasaki '892 in further view of the De Caro '938 reference.

The rejection of claims 50, 57, and 66 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

Rejection of Claims 31, 94, 100, and 106 Improper

Rejection of claims 31, 94, 100, and 106 is improper for at least the reason that the De Caro '938 reference is directed toward a different field of endeavor than the Applicants' claimed invention and is not pertinent to the particular problem with which the Applicants are concerned. Simply stated, a person of ordinary skill in the art would not reasonably have expected to solve, at least, the problem of "volcanoing" or "mushrooming" in composite building materials with a reference dealing with a "non-seating plate/screw assembly" as found in De Caro '938. The De Caro '938 explicitly teaches a plate and screw system with the screw having threads to hold down the plate. The plate is in turn used to hold down "material for a roof deck". De Caro '938, column 2, lines 23-24. The threads of the De Caro '938 are designed, under certain conditions, to entirely "disengage" with the substrate of the plate into which they are fastened. De Caro '938, column 5, lines 4-6. For at least these reasons the De Caro '938 reference is nonanalogous art, and as such cannot be relied on as a reference by the Examiner in this case. As such, the rejection of claims 31, 94, and 106 can not be properly made.

In addition, claim 31 depends directly on claim 23 and is patentable for at least the reason advanced for claim 23.

Rejection of Claims 95-97, 107-110, 113, and 119 Improper

Claims 95-97, 107-110, 113, and 119 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Rodenhouse Grip-Lok® screw in view of the Hsing '312 and De Caro '938 references as applied to claim 94, and in further view of the Takasaki '892 reference.


Claims 95-97, 107-110, 113, and 119 depend directly or indirectly on claim 94 and are patentable for at least the reason claim 94 is.

In addition, the rejection of claims 95-97, 107-110, 113, and 119 is improper for at least the reasons discussed above with regard to the improper combination or modification of the Rodenhouse Grip-Lok® screw teaching by the teaching and suggestion of Takasaki '892.

In summary, Applicants have addressed each of the rejections within the present Office Action either by Amendment or Remarks. It is believed the application now stands in condition for allowance, and prompt favorable action thereon is earnestly solicited.

Respectfully submitted,

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Enclosures

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